

**AMENDMENTS TO THE DRAWINGS:**

The attached drawing sheet includes changes to Figure 1 and replaces the original sheet including this figure. Specifically, the legend "PRIOR ART" has been added to Figure 1.

Attachments: One (1) Replacement Sheet  
One (1) Annotated Sheet Showing Changes

## REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-17 remain pending. By this communication, Fig. 1 of the drawings and claims 1, 3, 5, 6, and 17 are amended. Support for the amended subject matter can be found, for example, in paragraph 26 through 27 of Applicant's disclosure.

In numbered paragraph 1, on page 2 of the Office Action, Figure 1 is objected to for failing to include a prior art legend. Applicant provides herewith, an amendment to the drawing to address the Examiner's concerns. Therefore, withdrawal of this rejection is respectfully requested.

In numbered paragraph 2, on page 2 of the Office Action, the Examiner alleges that claim 17 is independent or distinct from the embodiments recited in claims 1-16. Applicant respectfully traverses this restriction because it is believed that all claims can be examined at the same time without serious burden. While the two inventions may be separately classified, it is believed that the search required for the invention set forth in claims 1-16 would likely extend into those areas where the non-elected invention recited in claim 17. However, in an effort to expedite prosecution claim 17 has been amended in a manner that makes claim 1 generic. Accordingly, withdrawal of the restriction is respectfully requested.

In numbered paragraph 4 on page 3 of the Office Action, claims 1-8 and 11-14 stand rejected under 35 U.S.C. §102(a) or (b) for alleged anticipation by Applicant's prior art (APA). Applicant respectfully traverses this rejection.

As discussed in the previous response, Figures 2-5 are directed to an insertion sensor electrode device that includes a probe holder 3 in which a probe 2 is installed. This device includes a safety adapter 25 positioned between a probe

detector tube 2 and a protective sleeve 105. The safety adapter 25 is distinguished by collar 26 that is inward-oriented toward the symmetry access 30 of the insertion sensor electrode device. The collar 26 surrounds a hexagonal portion 19 of the probe header 10, and in particular, reaches over and preferably bears against a step 32 that lies between the hexagonal portion 19 and a part of the connective terminal 11 that protrudes from the portion 19. The collar 26 of the safety adapter 25 reaches into a recess of the probe 2, where the recess is established by a gap between the step 32 and the sleeve 17 of the plug 12. In this manner, the probe 2 is retained in its installed position in the probe protector tube.

Applicant's claims broadly encompass the aforementioned features by reciting the following:

1. An insertion electrode device for installing a sensor probe in a container for a measuring medium, with the device comprising:
  - a probe housing configured for attachment to a container;
  - a probe protector tube to receive, hold and guide a sensor probe;
  - a safety adapter that is coupled to an end of the probe protector tube the safety adapter having means for preventing bi-axial movement of the sensor probe, said means being configured to interact with the sensor probe by one of engaging a recess of the sensor probe or reach over a step of the sensor probe; and
  - a coupling for electrical connections of the sensor probe, wherein the probe housing has a protective sleeve configured for connection to the probe protector tube to protect the electrical coupling from mechanical stress and moisture.

Applicant's prior art Figure 1 fails to anticipate Applicant's claims because it does not disclose or suggest every element recited therein. Particularly, the conventional probe shown in Figure 1 does not include the claimed combination of a probe housing, a probe protector and a safety adapter as recited in claim 1.

As provided in the background section of Applicant's disclosure, Figure 1 is described as follows:

Figure 1 represents, partly in a sectional view (in the left-hand part of the drawing), an example of a insertion electrode device 1 according to the state of the art. The device includes a static probe holder 3 that is suitable for installing a probe 2, in particular a glass electrode. The static probe holder 3 surrounding the probe 2 consists of a probe protector tube 4 and a protective sleeve 5. Near the end that faces towards the container in which the probe 2 is to be installed, the probe holder 3 has a process adapter 6 which is configured as a sleeve nut in the illustrated example. The process adapter 6 serves to screw the probe holder 3 to a connector socket (not shown in the drawing) of a container. Thus, a part of the probe protector tube reaches into the container (likewise not shown in the drawing). A probe 2, which is seated in the probe protector tube 4 extends likewise into the container and protrudes from the probe protector tube 4, so that a membrane 7 at the tip of the probe is immersed in the measuring fluid. A seal ring 8 prevents measuring fluid from entering between the probe 2 and the probe protector tube 4. A further seal ring 9 serves to seal the probe protector tube against the socket of the container. A third ring 18 retains the process adapter 6, so that the process adapter can move but remains captive in its position on the probe protector tube 4.

The probe 2 itself is screwed into the probe protector tube by means of an external thread 20 that mates with an internal thread 21 at the end of the probe protector tube that faces away from the process container. The same end of the probe protector tube 4 carries an external thread 24 which serves to attach a protective sleeve 5. For the purpose of this connection, the protective sleeve 5 is equipped with an internal thread 23 which is preferably formed in a connector part 22 which is solidly attached to the protective sleeve 5, for example by an adhesive bond. Of course, the protective sleeve could also be made of one piece. As an additional measure, a sealing compound is applied to the screw connection between the protective sleeve 5 and the probe protector tube 4, which serves in particular to prevent moisture from penetrating into the area of the electrical connection of the probe 2. When separated from the probe protector tube 4, the protective sleeve 5 can be moved along the cable 13 as well as turned about the cable 13 for making the screw connection, as the passage of the cable through the protective sleeve 5 is formed by a grommet 31 which can consist of rubber, so that it forms a good seal but is flexible at the same time.

On page 3 of the Office Action, the Examiner alleges that Applicant's claimed safety adapter reads on a couple of features depicted in Figure 1. First, a ledge provided on the prior art probe protector tube rests up against an enlarged portion of the probe where the connection portion of the probe resides prevents the probe from sliding too far down the probe protective to an axial direction. Second, internal threading of the protector tube when engaged with the external threading of the sensor probe also prevents direct axial movement of the probe.

Prior art Figure 1, however, fails to contemplate a structural configuration in which a probe protector tube, safety adapter unit, and a protective sleeve are inter-related within a probe housing.

As recited in claim 1, for example, the safety adapter is coupled to an end of the probe protector tube and includes means for preventing bi-axial movement of the sensor probe said means being configured to interact with the sensor probe by one of engaging a recess of the sensor probe or reach over a step of the sensor probe.

In contrast, the ledge and internal thread of the protector tube cannot and do not provide the same structural relationship to both a probe protector tube and a protective sleeve as the safety adapter recited in Applicant's claims. Moreover, the ledge and internal thread do not engage a recess of a sensor probe or reach over a step of the sensor probe, as is associated with Applicant's claimed safety adapter. For at least this reason, Applicant respectfully submits that prior art Figure 1 fails to establish a *prima facie* case of anticipation. Withdrawal of this rejection is therefore respectfully requested.

In numbered paragraph 13 on page 5 of the Office Action, claims 1-4 and 6-8 stand rejected under 35 U.S.C. §102(b) for alleged anticipation by *Stevenson, Jr.* (U.S. Patent No. 4,176,032). Applicant respectfully traverses this rejection.

As stated in the previous response, the *Stevenson* patent fails to disclose every element recited in Applicant's claims. Most notably, the concept described in the *Stevenson* patent is not reasonably related to Applicant's claimed insertion electrode device.

The *Stevenson* patent discloses the use of a sensor probe 10 that is supported on the lower end of a beam 12 whose other end is secured to a bracket that is anchored to a container or a tank. As shown in Figures 1-5, the sensor probe 10 is analogous to Applicant's claimed sensor probe such that the *Stevenson* patent

cannot possibly disclose or suggest a probe protector tube and coupling as recited in Applicant's claims.

The Examiner alleges that the *Stevenson* patent shows a probe 24 that is connected to a tube 14 via a constriction 15 of a threading connection. This structural configuration is alleged to engage a recess of the sensor probe and reach over a step of the sensor probe and secure the sensor probe against axial movement. Applicant disagrees with the Examiner's assertions. However, even assuming *arguendo* that the Examiner's interpretation of the *Stevenson* patent is accurate, this reference still does not teach the structural relationship amongst the features as recited in Applicant's claims.

Applicant's claims recite, in part, a probe protector tube that receives, holds, and guides a sensor probe; a safety adapter that is coupled to an end of the probe protector tube, the safety adapter having means for preventing bi-axial movement of the sensor probe, said means being configured to interact with the sensor probe by one of engaging a recess of the sensor probe or reach over a step of the sensor probe; and a protective sleeve configured to connect to the protector tube via a connection to the safety adapter.

In contrast, the constriction 15 as described in the *Stevenson* patent is connected to a tubular stem 24 through threading. A cap 17 is removably coupled to a casing 14. However, this coupling is not established via a connection to constriction 15. In fact, the cap 17 is merely held in close contact with the casing 14 through a coupling nut 18. There is no evidence that the cap is connected to the construction as the protective sleeve is connected to the safety adapter as recited in the claims. For these reasons, Applicant respectfully submits that one of ordinary

skill would not reasonably interpret the *Stevenson* patent as disclosing the structural configuration as recited in Applicant's claims. Accordingly, withdrawal of this rejection is respectfully requested.

In numbered paragraph 21 on page 6 of the Office Action, claims 5 and 11-14 stand rejected under 35 U.S.C. §103(a) for alleged unpatentable over *Stevenson* patent in view of Applicant's prior art Figure 1. Applicant respectfully traverses this rejection.

Because the foregoing claims variously depend from independent claim 1, Applicant respectfully submits that they are allowable by virtue of the preceding discussion and for the distinguishable over the applied art by the additional elements recited therein. For these reasons, a *prima facie* case of obviousness has not been established and withdrawal of this rejection is respectfully requested. Applicant acknowledges with appreciation the indication that claims 9, 10, 15, and 16 recite allowable subject matter.

Based on at least the foregoing amendments and remarks, Applicant submits that all pending claims 1-17 are allowable, and this application is in condition for allowance. In the event any issues remain, the Examiner is invited to contact Applicant's undersigned representative.

Respectfully submitted,

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